

Do not enter.  
5/25/2005  
179

**IN THE CLAIMS:**

Please AMEND claims 13 and 14 and ADD new claims 15 and 16 in accordance with the following:

1. (PREVIOUSLY PRESENTED) An eccentricity compensation apparatus of a disk drive servo system having an actuator actuating a head to a position on a disk rotated by a spindle to read data on or reproduce data from the disk, the apparatus comprising:
  - an error detector that detects a position error between a reference head position and an actual position of the head on the disk;
  - a first compensation controller that receives the position error from the error detector and generates and outputs a first control value to compensate for the position error by changing the actual position of the head;
  - a second compensation controller that generates and outputs a second control value to compensate for eccentricity which varies depending on a phase of the spindle that rotates the disk; and
  - a gain/phase adjuster that adjusts gain and phase of the second control value output from the second compensation controller according to a reproduction speed of the disk,wherein a drive signal of the actuator is obtained by summing the signals output from the first compensation controller and the gain/phase adjuster,
  - wherein the second compensation controller comprises a feedforward look-up table that stores control data estimated at a predetermined reproduction speed and used for compensating the eccentricity via the gain and phase adjustment, and
  - wherein the gain/phase adjuster compensates for gain reduction and phase lag in frequency response characteristics of the actuator based on the control data in the feedforward look-up table estimated at a predetermined reproduction speed, without updating the control data in the feedforward look-up table each time the reproduction speed changes.
2. (CANCELLED)
3. (ORIGINAL) The apparatus of claim 1, wherein the gain/phase adjuster adjusts the gain and phase of the second control value output from the second compensation controller according to the disk reproduction speed based on frequency response characteristics of the actuator.
4. (ORIGINAL) The apparatus of claim 1, wherein the first compensation controller comprises a phase lead-lag controller to obtain the first control value.